

What Is Claimed Is:

1. A conductor composition prepared in the form of an ink or a paste that is suitable for forming a conductor film on a piezoelectric ceramic material, the conductor composition comprising:

a platinum powder that is a principal conductor-forming component; and

a rare earth oxide powder having a mean particle size in a range of approximately 10 to approximately 100 nm.

2. The conductor composition according to claim 1, containing said rare earth oxide powder in a proportion of approximately 0.1 to approximately 3 parts by mass per 100 parts by mass of said platinum powder.

3. The conductor composition according to claim 1, containing yttrium oxide as said rare earth oxide powder.

4. The conductor composition according to claim 1, containing at least one cerium group rare earth oxide as said rare earth oxide powder.

5. A method of forming a conductor film baked on a piezoelectric ceramic material, the method comprising the steps of:

preparing a conductor composition prepared in the form of an ink or a paste comprising a platinum powder that is a principal conductor-forming component, and a rare earth oxide powder having a mean particle size in a range of approximately 10 to approximately 100 nm;

applying said composition onto a substrate made of a piezoelectric ceramic material; and

baking said substrate onto which said composition has been applied.

6. The method according to claim 5, wherein a ceramic material constituted substantially from PZT is used for said substrate.

7. The method according to claim 6, wherein the baking is carried out in an atmosphere containing PZT.

8. A method of manufacturing a piezoelectric element, the method comprising the steps of:

preparing a conductor composition prepared in the form of an ink or a paste comprising a platinum powder that is a principal conductor-forming component, and a rare earth oxide powder having a mean particle size in a range of approximately 10 to approximately 100 nm;

applying said composition onto a substrate made of a piezoelectric ceramic material;
and

baking said substrate onto which said composition has been applied.

9. The method according to claim 8, wherein a ceramic material constituted substantially from PZT is used for said substrate.

10. The method according to claim 9, wherein the baking is carried out in an atmosphere containing PZT.